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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:	Anderson et al.	Confirmation No.:	5858
Serial No.:	10/680,781	Art Unit:	2837
Filed:	October 6, 2003	Examiner:	To be assigned
For:	<i>Current Monitoring System and Method for Metering Peristaltic Pump</i>	Attorney Docket No:	60861-0038-US
		Date:	January 19, 2005

PRELIMINARY AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please amend the present application as follows:

IN THE SPECIFICATION

Please amend paragraph [0017] on page 3 as follows:

[0017] While a theory of operation is provided, it is to be understood that the invention **[[is]]** itself is the apparatus of the invention and the method of operation of the invention. The theory of operation is provided solely to make the apparatus and methods of the invention easier to understand.

Please amend paragraph [0028] on page 6 as follows:

[0028] Referring to Figure 5, in an exemplary embodiment the controller 220 includes a central processing unit (CPU) 302, the analog to digital converter 130, an output port 304 for controlling the motor (i.e., for turning it on and off), memory 306 and a user interface 308. The CPU 302 executes procedures stored in the memory 306. The user interface may be as simple as a key pad and a small LCD screen or the like, or may be more robust. The memory typically includes both volatile and non-volatile memory arrays, for storing software and data. In some embodiments, the memory 306 of the controller includes modules, instructions and data arrays including:

Please amend paragraph [0048] on page 14 as follows:

[0048] ~~In one embodiment, Y is equal to 1.25.~~ In some embodiments Y is a value between 1.2 and 1.5, inclusive. In one embodiment, Y is equal to 1.25. If the current cycle period value is greater than this amount, the cycle count value is increased by 1 to compensate for a missed pump cycle. However, the instructions for detecting and compensating for a missed pump cycle are not performed if the array 370 has not yet been filled with cycle period values, because the array 370 needs to be filled in order to accurately compute an average cycle period (called the AveragePeriod in the pseudo code of Table 1). Thus, during the first P cycle periods of operation, the controller is unable to detect and compensate for missed cycles. In another embodiment, in order to correct for multiple missed cycles, the correction to the cycle count value is determined by dividing the current cycle period by the average period, and rounding the resulting quotient to an integer value.